

First Hit Fwd Refs

L7: Entry 1 of 12

File: USPT

Feb 12, 2002

US-PAT-NO: 6346248

DOCUMENT-IDENTIFIER: US 6346248 B1

TITLE: Methods of treating autoimmune diseases with a CD86-specific immunotoxin

DATE-ISSUED: February 12, 2002

INT-CL: [07] A61 K 39/395, C07 K 16/28

US-CL-ISSUED: 424/181.1; 424/130.1, 424/133.1, 424/135.1, 424/141.1, 424/143.1, 424/144.1, 424/153.1, 424/173.1, 424/178.1, 424/183.1, 530/387.1, 530/387.3, 530/388.1, 530/388.2, 530/388.22, 530/388.7, 530/388.73, 530/391.1, 530/391.7

US-CL-CURRENT: 424/181.1; 424/130.1, 424/133.1, 424/135.1, 424/141.1, 424/143.1, 424/144.1, 424/153.1, 424/173.1, 424/178.1, 424/183.1, 530/387.1, 530/387.3, 530/388.1, 530/388.2, 530/388.22, 530/388.7, 530/388.73, 530/391.1, 530/391.7

FIELD-OF-SEARCH: 424/130.1, 424/133.1, 424/143.1, 424/173.1, 424/178.1, 530/387.1, 530/387.3, 530/388.2, 530/388.22, 530/388.73, 530/391.1, 530/391.7

## Search Results - Record(s) 1 through 26 of 26 returned.

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L2: Entry 1 of 26

File: USPT

Dec 9, 2003

US-PAT-NO: 6660714  
DOCUMENT-IDENTIFIER: US 6660714 B1

TITLE: .alpha.-O-linked glycoconjugates, methods of preparation and uses thereof

DATE-ISSUED: December 9, 2003

US-CL-CURRENT: 514/2; 514/23, 514/25, 514/8

INT-CL: [07] A01 N 37/18

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L2: Entry 2 of 26

File: USPT

Dec 2, 2003

US-PAT-NO: 6656472  
DOCUMENT-IDENTIFIER: US 6656472 B1

TITLE: Multi oligosaccharide glycoconjugate bacterial meningitis vaccines

DATE-ISSUED: December 2, 2003

US-CL-CURRENT: 424/193.1; 424/197.11, 424/244.1, 424/249.1, 424/250.1, 530/322,  
530/335, 530/345, 530/402, 530/403, 530/807

INT-CL: [07] A61 K 39/385, A61 K 39/09, A61 K 39/095, A61 K 38/14, C07 K 1/36

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L2: Entry 3 of 26

File: USPT

Nov 11, 2003

US-PAT-NO: 6645935  
DOCUMENT-IDENTIFIER: US 6645935 B2

TITLE: Synthesis of glycoconjugates of the lewis Y epitope and uses thereof

DATE-ISSUED: November 11, 2003

US-CL-CURRENT: 514/8; 514/25, 536/4.1

INT-CL: [07] A61 K 38/16, A61 K 31/70, C07 H 17/00

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L2: Entry 4 of 26

File: USPT

Oct 28, 2003

US-PAT-NO: 6638513  
DOCUMENT-IDENTIFIER: US 6638513 B2

TITLE: Neisseria meningitidis serogroup B Glycoconjugates

DATE-ISSUED: October 28, 2003

US-CL-CURRENT: 424/197.11; 424/184.1, 424/203.1, 424/234.1, 424/250.1, 424/257.1,

424/831, 514/23, 536/123.1

INT-CL: [07] A61 K 39/385, A61 K 39/116, A61 K 39/095, A61 K 39/02

---

L2: Entry 5 of 26

File: USPT

Apr 15, 2003

US-PAT-NO: 6548484

DOCUMENT-IDENTIFIER: US 6548484 B1

TITLE: Pharmaceutical dopamine glycoconjugate compositions and methods of their preparation

DATE-ISSUED: April 15, 2003

US-CL-CURRENT: 514/25; 536/17.9

INT-CL: [07] A61 K 31/70, C07 H 17/02

---

L2: Entry 6 of 26

File: USPT

Apr 8, 2003

US-PAT-NO: 6544952

DOCUMENT-IDENTIFIER: US 6544952 B1

TITLE: Synthesis of glycoconjugates of the globo-H epitope and uses thereof

DATE-ISSUED: April 8, 2003

US-CL-CURRENT: 514/23; 424/184.1, 424/277.1, 514/42, 514/54, 514/62

INT-CL: [07] A01 N 113/04

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L2: Entry 7 of 26

File: USPT

Jan 14, 2003

US-PAT-NO: 6506734

DOCUMENT-IDENTIFIER: US 6506734 B1

TITLE: 20(S) camptothecin glycoconjugates

DATE-ISSUED: January 14, 2003

US-CL-CURRENT: 514/25; 514/27, 514/283, 514/32, 514/34, 514/81, 536/17.2, 536/17.3, 536/17.4, 546/23, 546/48

INT-CL: [07] A61 K 31/702, C08 B 15/18, C07 D 491/22

---

L2: Entry 8 of 26

File: USPT

Dec 10, 2002

US-PAT-NO: 6492335

DOCUMENT-IDENTIFIER: US 6492335 B1

TITLE: Glycoconjugates from modified camptothecin derivatives (20-O-linkage)

DATE-ISSUED: December 10, 2002

US-CL-CURRENT: 514/25; 514/27, 514/283, 514/32, 514/34, 514/81, 546/23, 546/48

INT-CL: [07] A61 K 31/70, A61 K 31/675, A61 K 31/44, C07 F 9/06

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L2: Entry 9 of 26

File: USPT

Oct 1, 2002

US-PAT-NO: 6458937

DOCUMENT-IDENTIFIER: US 6458937 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Glycoconjugates and methods

DATE-ISSUED: October 1, 2002

US-CL-CURRENT: 536/1.11; 536/18.6

INT-CL: [07] C07 H 3/02

---

L2: Entry 10 of 26

File: USPT

Oct 16, 2001

US-PAT-NO: 6303120

DOCUMENT-IDENTIFIER: US 6303120 B1

TITLE: Synthesis of glycoconjugates of the lewis y epitope and uses thereof

DATE-ISSUED: October 16, 2001

US-CL-CURRENT: 424/137.1; 424/138.1, 424/187.1, 424/193.1, 536/18.1, 536/18.6

INT-CL: [07] A61 K 39/395, A61 K 39/21, C07 H 15/24

---

L2: Entry 11 of 26

File: USPT

Dec 5, 2000

US-PAT-NO: 6156754

DOCUMENT-IDENTIFIER: US 6156754 A

TITLE: Glycoconjugates of modified camptothecin derivatives (A-or B-ring linkage)

DATE-ISSUED: December 5, 2000

US-CL-CURRENT: 514/253.02; 514/23, 514/279, 514/283, 536/17.4, 544/361, 546/41,  
546/48

INT-CL: [07] A61 K 31/50, A61 K 31/44, C07 D 471/00, C07 D 401/00

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L2: Entry 12 of 26

File: USPT

Jun 13, 2000

US-PAT-NO: 6075134

DOCUMENT-IDENTIFIER: US 6075134 A

TITLE: Glycoconjugates and methods

DATE-ISSUED: June 13, 2000

US-CL-CURRENT: 536/17.2; 424/193.1, 536/22.1

INT-CL: [07] C07 H 15/00, C07 H 19/00, A61 K 39/385

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L2: Entry 13 of 26

File: USPT

Apr 4, 2000

US-PAT-NO: 6046040

DOCUMENT-IDENTIFIER: US 6046040 A

TITLE: Method for producing glycoconjugates

DATE-ISSUED: April 4, 2000

US-CL-CURRENT: 435/97; 435/100, 435/101, 435/134, 435/135, 435/174, 435/176,  
435/177, 435/72, 435/74, 435/84, 435/99

INT-CL: [07] C12 P 19/18, C12 P 19/14, C12 P 19/00, C12 P 19/26, C12 P 7/64

---

L2: Entry 14 of 26

File: USPT

Sep 21, 1999

US-PAT-NO: 5955324

DOCUMENT-IDENTIFIER: US 5955324 A

TITLE: Process for producing carbohydrate or glycoconjugate

DATE-ISSUED: September 21, 1999

US-CL-CURRENT: 435/99; 435/100, 435/101, 435/72, 435/74, 435/84, 435/96, 435/98,  
536/123, 536/123.1, 536/17.2, 536/4.1

INT-CL: [06] C12 P 19/14, C12 P 19/26, C08 B 37/08

---

L2: Entry 15 of 26

File: USPT

Apr 6, 1999

US-PAT-NO: 5892070

DOCUMENT-IDENTIFIER: US 5892070 A

TITLE: Transgenic non-human mammals producing oligosaccharides and glycoconjugates

DATE-ISSUED: April 6, 1999

US-CL-CURRENT: 800/14; 435/69.1, 800/15, 800/16, 800/17, 800/18

INT-CL: [06] C12 N 5/00, C12 N 15/00, C12 P 21/06

---

L2: Entry 16 of 26

File: USPT

Mar 2, 1999

US-PAT-NO: 5877310

DOCUMENT-IDENTIFIER: US 5877310 A

TITLE: Glycoconjugated fluorescent labeling reagents

DATE-ISSUED: March 2, 1999

US-CL-CURRENT: 536/25.32; 435/7.8, 530/802, 536/6.5, 548/455

INT-CL: [06] C07 H 21/02, C07 H 17/08, 007 H 21/04, G01 N 33/53

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L2: Entry 17 of 26

File: USPT

Sep 16, 1997

US-PAT-NO: 5668272

DOCUMENT-IDENTIFIER: US 5668272 A

TITLE: Method for producing synthetic N-linked glycoconjugates

DATE-ISSUED: September 16, 1997

US-CL-CURRENT: 536/55.3; 530/322, 536/55.2

INT-CL: [06] C07 H 5/04, C07 H 5/06, C07 K 9/00

---

L2: Entry 18 of 26

File: USPT

Mar 28, 1995

US-PAT-NO: 5401723

DOCUMENT-IDENTIFIER: US 5401723 A

TITLE: Glycoconjugate inhibition of *Streptococcus pyogenes* adhesion

DATE-ISSUED: March 28, 1995

US-CL-CURRENT: 514/21; 424/49, 514/54, 525/54.1, 536/55.1, 536/55.2, 536/55.3

INT-CL: [06] A61 K 37/02, A61 K 47/36, A61 K 31/70

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L2: Entry 19 of 26

File: USPT

May 10, 1994

US-PAT-NO: 5310682

DOCUMENT-IDENTIFIER: US 5310682 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Fluorogenic reagents for detection of glycoconjugates,  $\alpha$ -ketoacids and diketones

DATE-ISSUED: May 10, 1994

US-CL-CURRENT: 436/128; 436/127, 436/129, 436/161, 436/162, 436/172, 436/93,  
436/94, 549/438, 549/439, 560/21, 560/22, 560/45, 560/48, 562/435, 562/437,  
562/452, 562/458

INT-CL: [05] G01N 21/64, G01N 33/64, C07C 205/00, C07C 229/00

---

L2: Entry 20 of 26

File: USPT

Jan 18, 1994

US-PAT-NO: 5280113

DOCUMENT-IDENTIFIER: US 5280113 A

TITLE: Method for producing synthetic N-linked glycoconjugates

DATE-ISSUED: January 18, 1994

US-CL-CURRENT: 536/55.2; 435/7.92, 536/55.3

INT-CL: [05] C07H 5/04, C12Q 1/00

---

L2: Entry 21 of 26

File: USPT

Jan 4, 1994

US-PAT-NO: 5275935

DOCUMENT-IDENTIFIER: US 5275935 A

TITLE: Amebic glycoconjugate and monoclonal antibody

DATE-ISSUED: January 4, 1994

US-CL-CURRENT: 435/7.22; 435/70.21, 530/388.1, 530/388.6, 536/1.11

INT-CL: [05] G01N 33/569, C07K 15/28, C12P 21/08, C12N 5/12

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L2: Entry 22 of 26

File: USPT

Jul 6, 1993

US-PAT-NO: 5225529

DOCUMENT-IDENTIFIER: US 5225529 A

TITLE: Synthetic amphiphilic glycoconjugates for neurological use

DATE-ISSUED: July 6, 1993

US-CL-CURRENT: 530/322; 530/331, 530/399, 536/116, 536/119, 536/17.2, 536/17.9,  
536/18.7

INT-CL: [05] C07H 13/04, A61K 37/02, C07K 9/00

---

L2: Entry 23 of 26

File: USPT

May 18, 1993

US-PAT-NO: 5212298

DOCUMENT-IDENTIFIER: US 5212298 A

TITLE: Method for producing synthetic N-linked glycoconjugates

DATE-ISSUED: May 18, 1993

US-CL-CURRENT: 536/55.2; 435/7.92, 536/53, 536/55.3

INT-CL: [05] C07H 5/04, C07H 37/00

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L2: Entry 24 of 26

File: USPT

Oct 27, 1992

US-PAT-NO: 5158886

DOCUMENT-IDENTIFIER: US 5158886 A

TITLE: Monoclonal antibodies specific for free N-acetylneurameric acid and beta-glycosides and beta-glycoconjugates thereof

DATE-ISSUED: October 27, 1992

US-CL-CURRENT: 435/329; 435/70.21, 530/388.9

INT-CL: [05] C12N 45/20, C12N 5/20, C07K 15/28, C12P 21/08

---

L2: Entry 25 of 26

File: USPT

Jan 21, 1992

US-PAT-NO: 5082929

DOCUMENT-IDENTIFIER: US 5082929 A

TITLE: Immobilization of glycocompounds and glycoconjugates

DATE-ISSUED: January 21, 1992

US-CL-CURRENT: 530/391.1; 435/174, 436/527, 436/532, 525/54.1

INT-CL: [05] C07K 17/14, C12N 11/14

---

L2: Entry 26 of 26

File: USPT

Nov 22, 1983

US-PAT-NO: 4416872

DOCUMENT-IDENTIFIER: US 4416872 A

TITLE: Treatment of malaria with liposomes containing 8-aminoquinoline derivatives and glycoconjugates

DATE-ISSUED: November 22, 1983

US-CL-CURRENT: 514/8; 514/25, 514/26, 514/895, 530/395

INT-CL: [03] A61K 37/00, C07C 103/52

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[Previous Page](#)    [Next Page](#)

**Search Results - Record(s) 1 through 2 of 2 returned.**

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L12: Entry 1 of 2

File: USPT

Dec 1, 1998

US-PAT-NO: 5843713

DOCUMENT-IDENTIFIER: US 5843713 A

TITLE: Peptide sequence that forms mucin sugar chain and technique for modifying protein to be linked with mucin sugar chain

DATE-ISSUED: December 1, 1998

US-CL-CURRENT: 435/69.1; 435/320.1, 435/325, 435/70.1, 536/23.1, 536/23.4

INT-CL: [06] C12 P 21/06, C12 P 21/04, C12 N 5/00, C07 H 21/02

---

L12: Entry 2 of 2

File: USPT

Aug 29, 1995

US-PAT-NO: 5445817

DOCUMENT-IDENTIFIER: US 5445817 A

TITLE: Pertussis toxin used as a carrier protein with non-charged saccharides in conjugate vaccines

DATE-ISSUED: August 29, 1995

US-CL-CURRENT: 424/194.1; 424/197.11, 424/240.1, 424/244.1, 424/831, 530/402,  
530/403

INT-CL: [06] A61 K 39/385, A61 K 39/09, A61 K 39/10

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[Previous Page](#)      [Next Page](#)

## WEST Search History

DATE: Wednesday, May 12, 2004

<u>Hide?</u>	<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>
<i>DB=USPT; PLUR=YES; OP=AND</i>			
<input type="checkbox"/>	L1	glycoconjugat\$.ti. ('6156754'  '5225529'  '5275935'  '6544952'  '5082929'  '6656472'  '6548484'	26
<input type="checkbox"/>	L2	'5280113'  '6660714'  '5158886'  '6638513'  '5892070'  '5212298'  '6458937' '6075134'  '5955324'  '5877310'  '6492335'  '6303120'  '4416872'  '5668272' '5401723'  '6645935'  '6046040'  '5310682'  '6506734')!.PN.	26
<input type="checkbox"/>	L3	shiga\$ near3 carrier	0
<input type="checkbox"/>	L4	shiga\$ near3 conjugate\$	0
<input type="checkbox"/>	L5	shiga\$ near3 \$conjugate	0
<input type="checkbox"/>	L6	shiga\$ near3 coupl\$	0
<input type="checkbox"/>	L7	shiga\$ near3 link\$	12
<input type="checkbox"/>	L8	(protein\$ or peptide or peptides or polypeptide or epitope or \$tope or poly-peptide).ti.	17161
<input type="checkbox"/>	L9	(saccharide or sugar or disaccharide or polysaccharide or o-specific or serotype or sero-type or oligosaccharide or oligo-saccharide or poly-saccharide).ti.	3962
<input type="checkbox"/>	L10	L9 and l8	84
<input type="checkbox"/>	L11	L10 and (slt\$ or shiga\$ or verotoxin or verotoxins or vero-toxin or vt\$ or verotoxin\$)	2
<input type="checkbox"/>	L12	('5445817'  '5843713')!.PN.	2
<input type="checkbox"/>	L13	L10 and (o157 or o-157 or o157h7 or o157-h7 or o-157-h-7)	0
<input type="checkbox"/>	L14	L10 and coli	30
<input type="checkbox"/>	L15	L14 not l12	28

END OF SEARCH HISTORY

Shiga-like toxin II subunit B precursor (Verotoxin 2 subunit B) (SLT-IIB).  
{GENE: STX2B} - Bacteriophage 933W

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Search in TrEMBL: There are matches to 48 out of 1064560 entries

P71293

Shiga-like toxin IIe variant A subunit - Escherichia coli

P71294

Shiga-like toxin IIe variant B subunit - Escherichia coli

P77051

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77053

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77054

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77055

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77056

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77057

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77058

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77059

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77060

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77061

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77062

Variant shiga-like toxin II (Fragment) - Escherichia coli

P77063

 <a href="#">ExPASy Home page</a>	<a href="#">Site Map</a>	<a href="#">Search ExPASy</a>	<a href="#">Contact us</a>	<a href="#">Swiss-Prot</a>				
Hosted by NCSC US	Mirror sites:	Australia	Bolivia	Canada	China	Korea	Switzerland	Taiwan
<input type="button" value="Search"/> <input type="text" value="Swiss-Prot/TrEMBL"/>		<input type="button" value="▼"/>		<input type="text" value="for"/>		<input type="button" value="Go"/>	<input type="button" value="Clear"/>	

# Search in Swiss-Prot and TrEMBL for: shiga toxin II

Swiss-Prot Release 43.3 of 10-May-2004  
TrEMBL Release 26.3 of 10-May-2004

---

- Number of sequences found in Swiss-Prot<sub>(2)</sub> and TrEMBL<sub>(48)</sub>: 50
- Note that the selected sequences can be saved to a file to be later retrieved; to do so, go to the bottom of this page.
- For more directed searches, you can use the Sequence Retrieval System SRS.

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Search in Swiss-Prot: There are matches to 2 out of 151047 entries

## SLTA BP933 (P09385)

Shiga-like toxin II subunit A precursor (EC 3.2.2.22) (Verotoxin 2 subunit A) (rRNA N-glycosidase) (SLT-IIA). {GENE: STX2A} - Bacteriophage 933W

## SLTB BP933 (P09386)

Variant shiga-like toxin II VT subunit A (Fragment) - Escherichia coli  
P77064

Variant shiga-like toxin II VT subunit A (Fragment) - Escherichia coli  
P77065

Variant shiga-like toxin II VT subunit A (Fragment) - Escherichia coli  
P77066

Variant shiga-like toxin II VT subunit A (Fragment) - Escherichia coli  
P77387

Variant VEROCTOTOXIN type 2B subunit (Variant SHIGA-like toxin II  
VT subunit A) (SHIGA-like toxin B-subunit) {GENE:STXB2D} - Escherichia  
coli

P77498

Variant SHIGA-like toxin II VT subunit A (Fragment) - Escherichia coli  
P77514

Variant SHIGA-like toxin II VT subunit A (Fragment) - Escherichia coli  
Q03037

SHIGA-like toxin II subunit A precursor (Verotoxin 2 subunit A) (RRNA  
N-glycosidase) (EC 3.2.2.22) {GENE:SLT-IIA} - Escherichia coli  
Q03038

SHIGA-like toxin II subunit B precursor (Verotoxin 2 subunit B)  
{GENE:SLT-IIB} - Escherichia coli

Q07871

Shiga toxin 2B subunit (Shiga toxin 2 variant d B subunit) (SHIGA-like  
toxin II subunit B homolog precursor) (Verotoxin 2 subunit B homolog)  
(STX2C protein B subunit) (SHIGA-like toxin type 2 subunit B) (SHIGA  
toxin type 2 variant B subunit) (Variant Shiga toxin type 2 B subunit)  
{GENE:STX2B OR STX2DB OR SLT-IICB OR STX2C OR STX2VHDB} -  
Escherichia coli, Escherichia coli O157:H7

Q46050

Shiga-like toxin {GENE:SLT-IICA} - *Citrobacter freundii*

Q47636

Shiga-like toxin type II A subunit (Shiga toxin 2 subunit A) {GENE:STXA2}  
- Escherichia coli, Escherichia coli O157:H-

Q47642

Shiga-like toxin type IIvhc precursor - Escherichia coli

Q47643

Shiga-like toxin II A subunit - Enterobacter cloacae

Q47644

SLT-IIVB precursor (SHIGA-like toxin 2B-subunit) (Shiga-like toxin IIe variant subunit B) {GENE:STX2E B} - Escherichia coli

Q47645

Shiga-like toxin II precursor - Escherichia coli

Q47646

SHIGA-like toxin II-B subunit precursor (STX2FB protein) {GENE:STX2TB OR STX2FB} - Escherichia coli

Q57249

SHIGA-like toxin II B subunit (STX2B protein) (Shiga toxin 2 subunit B) {GENE:STXII OR STX2B OR STXB2} - Enterobacter cloacae, Escherichia coli, Escherichia coli O157:H-

Q7WUF4

Shiga-like toxin IIe variant subunit A - Escherichia coli

Q8X531

Shiga toxin 2 B-subunit (Verocytotoxin subunit B) (Shiga toxin 2 B subunit) (Shiga toxin II subunit B) (Shiga-like toxin 2 B-subunit) (Shiga toxin 2 subunit B) (Shiga-like toxin II B subunit encoded by bacteriophage BP-933W) {GENE:STX2 B-SUBUNIT OR VTB OR STX-2 B SUBUNT OR STXII OR STX2 OR STX2B OR Z1465 OR ECS1206} - Escherichia coli, Escherichia coli O157:H7

Q8XBV2

Shiga toxin 2 A-subunit (Verocytotoxin subunit A) (Shiga-like toxin 2 A-subunit) (Shiga toxin 2 subunit A) (Shiga-like toxin II A subunit encoded by bacteriophage BP-933W) {GENE:STX2 A-SUBUNIT OR VTA OR STX2 OR STX2A OR Z1464 OR ECS1205} - Escherichia coli, Escherichia coli O157:H7

Q9F654

Shiga toxin II B subunit (Fragment) - Escherichia coli

Q9F655

Shiga toxin II A subunit - Escherichia coli

Q9R2N7

SHIGA toxin II subunit A (Fragment) {GENE:STXII} - Escherichia coli

Q9RHN8

Shiga toxin II subunit B {GENE:STXII} - Escherichia coli

Q9RHN9

Shiga toxin II subunit B {GENE:STXII} - Escherichia coli

Q9RHP0

Shiga toxin II subunit B {GENE:STXII} - Escherichia coli

Q9RHP1

Shiga toxin II subunit A (Fragment) {GENE:STXII} - Escherichia coli

Q9RHP2

Shiga toxin II subunit B {GENE:STXII} - Escherichia coli

Q9RHP3

Shiga toxin subunit B {GENE:STXII} - Escherichia coli

Q9RHP4

Shiga toxin II subunit B {GENE:STXII} - Escherichia coli

Q9RHP5

Shiga toxin II subunit B {GENE:STXII} - Escherichia coli

Q9RHP6

Shiga toxin II subunit B {GENE:STXII} - Escherichia coli

Q9RHP7

Shiga toxin II subunit B {GENE:STXII} - Escherichia coli

Q9RHP8

Shiga toxin II subunit B {GENE:STXII} - Escherichia coli

in Swiss-Prot/TrEMBL by AC, ID,  
description, gene name, organism

Please do NOT use any boolean  
operators (and, or, etc.)

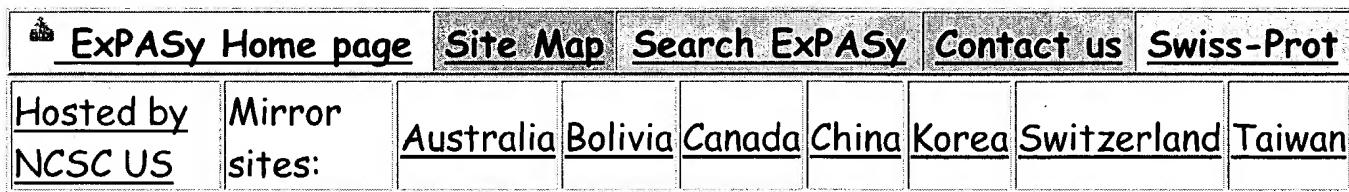
If you would like to retrieve all the Swiss-Prot/TrEMBL entries contained in this list, you can enter a file name. These entries will then be saved to a file under this name in the directory outgoing of the ExPASy anonymous ftp server,

from where you can download it. (Please note that this temporary file will only be kept for 1 week.)

File name:

Format:  Swiss-Prot  Fasta

or



## WEST Search History

DATE: Wednesday, May 12, 2004

**Hide? Set Name Query** **Hit Count**

*DB=USPT; PLUR=YES; OP=AND*

<input type="checkbox"/>	L1	5204097.pn. and antibod\$	1
<input type="checkbox"/>	L2	L1 and human	1
<input type="checkbox"/>	L3	L1 and passiv\$	0
<input type="checkbox"/>	L4	L1 and passive	0
<input type="checkbox"/>	L5	L1 and pass\$	0

END OF SEARCH HISTORY

[First Hit](#) [Fwd Refs](#)

L15: Entry 7 of 28

File: USPT

Mar 26, 2002

DOCUMENT-IDENTIFIER: US 6361777 B1

TITLE: Method of coupling polysaccharides to proteins

Brief Summary Text (17):

Polysaccharides that can be conjugated include starch-like and cellulosic material, but the present method is especially suitable for conjugating microbial polysaccharides that are haptens or immunogens. Examples thereof are pneumococcal capsular polysaccharides of the various types including e.g. Danish types 1, 3, 4, 6A, 6B, 7S, 9V, 14, 18C, 19F and 23F, group B streptococcal polysaccharides, capsular polysaccharides of *Klebsiella pneumoniae*, *Haemophilus influenzae* including type b polysaccharide, *Neisseria meningitidis* (groups A and C), *Pseudomonas aeruginosa* or *Escherichia coli*. It is noted that the term "polysaccharides" as used herein comprises sugar-containing polymers and oligomers, whether they only contain glycosidic linkages or also phosphodiester or other linkages. They may also contain non-sugar moieties such as acid groups, phosphate groups, amino groups, sugar alcohols and amino acids, and they may be depolymerised or not. By way of illustration the repeating units of the pneumococcal capsular polysaccharides types 6B, 14, 19F and 23 and the *H. influenzae* type b capsular polysaccharide are given below: Pn 6B .fwdarw.2) -.alpha.-D-Galp-(1.fwdarw.3) -.alpha.-D-Glcp-(1.fwdarw.3) -.alpha. -L-Rhap-(1.fwdarw.4) -D-Ribitol -5-(PO<sub>4</sub>)<sub>2</sub>sup.-.fwdarw. Pn 14 .fwdarw.4) -.beta.-D-Glcp-(1.fwdarw.6) -.beta.-D-Glcp\*NAc-(1.fwdarw.3) -.beta. -.D-Galp-(1.fwdarw.4) : bearing a .beta.-D-Galp-(1.fwdarw.4) side group Pn 19F .fwdarw.4) -.beta.-ManpNAc-(1.fwdarw.4) -.alpha.-D-Glcp-(1.fwdarw.2) -.alpha. -L-Rhap-(1-PO<sub>4</sub>)<sub>2</sub>sup.-.fwdarw. Pn 23F .fwdarw.4) -.beta.-D-Glcp.sup.# -(1.fwdarw.4) -.beta.-D-Galp.sup.& -(1.fwdarw.4) -.beta.-L-Rhap-(1.fwdarw.4) .sup.# : bearing a phosphoglyceryl-(.fwdarw.3) side group .sup.& : bearing an .alpha.-L-Rhap-(1.fwdarw.2) side group Hi b .fwdarw.3) -.beta.-D-Ribf-(1.fwdarw.1)-D-Ribitol-5-(PO<sub>4</sub>)<sub>2</sub>sup.-.fwdarw.

Brief Summary Text (19):

Proteins and peptides that may be conjugated with the present method include immunogenic and non-immunogenic proteins. Examples are serum albumins and various bacterial toxins and toxoids, such as diphtheria toxin, tetanus toxoid, pneumolysin, pneumolysoid, toxins of other organisms such as *Pseudomonas*, *Staphylococcus*, *Bordetella pertussis*, *Escherichia coli*, optionally detoxified, so-called cross-reacting material (e.g. CRM 197) and haemocyanins. They may also be outer membrane proteins of organisms such as *Neisseria meningitidis* or *Bordetella pertussis*. The proteins may also be antibodies to be used for conveying another biomaterial to a desired site. The proteins and peptides may be used as independent immunogens, or they may be used to render the other material such as haptens more immunogenic. They may native or detoxified or mutated. The term peptides and proteins are used indiscriminately herein, even though proteins in general denote higher molecular weight materials than peptides.

07783158 PMID: 3286849

Management of hemolytic -uremic syndrome .

Sieglar R L

Department of Pediatrics, University of Utah School of Medicine, Salt Lake City 84132.

Journal of pediatrics (UNITED STATES) Jun 1988 , 112 (6) p1014-20,  
ISSN 0022-3476 Journal Code: 0375410

Comment in J Pediatr. 1989 May;114(5) 901-2; Comment in PMID 2715905

Document type: Journal Article; Review; Review, Academic

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: AIM; INDEX MEDICUS

(65 Refs.)

Tags: Human

Descriptors: \*Hemolytic-Uremic Syndrome--therapy--TH; Child; Electrolytes  
--therapeutic use--TU; Fluid Therapy; Nutrition; Renal Dialysis; Uremia  
--therapy--TH

CAS Registry No.: 0 (Electrolytes)

Record Date Created: 19880706

Record Date Completed: 19880706

File 155: MEDLINE(R) 1966-2004/May W1

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\*File 155: Medline has been reloaded. Accession numbers  
have changed. Please see HELP NEWS 154 for details.

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S3 31819 E3-E20
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S6 14114 E3-E18
S7 46448 S1-S6
S8 2114 E24-E36
S9 80 E37-E39
S10 2114 'ESCHERICHIA COLI O157'
S11 2114 R1-R3
S12 3 S7 AND (S8 OR S9 OR S10 OR S11) AND HUMAN?
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S13 9 S7 AND HUS
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    9 S13
    3 S12
S14 7 S13 NOT S12
?t s14/9/all
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14/9/1

DIALOG(R) File 155: MEDLINE(R)

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12379569 PMID: 12761090

Stx2-specific human monoclonal antibodies protect mice against lethal infection with Escherichia coli expressing Stx2 variants.

Sheoran Abhineet S; Chapman Susan; Singh Pradeep; Donohue-Rolfe Arthur; Tzipori Saul

Division of Infectious Diseases, Tufts University School of Veterinary Medicine, North Grafton, Massachusetts 01536, USA.

Infection and immunity (United States) Jun 2003, 71 (6) p3125-30,  
ISSN 0019-9567 Journal Code: 0246127

Contract/Grant No.: P30-DK-34928; DK; NIDDK; R01-AI41326; AI; NIAID

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Shiga toxin-producing Escherichia coli (STEC) strains are responsible for causing hemolytic-uremic syndrome ( HUS ), and systemic administration of Shiga toxin (Stx)-specific human monoclonal antibodies (HuMAbs) is considered a promising approach for prevention or treatment of the disease in children. The goal of the present study was to investigate the ability of Stx2-specific HuMAbs to protect against infections with STEC strains that produce Stx2 variants. Dose-response studies on five HuMAbs, using the mouse toxicity model, revealed that only the three directed against the A subunit were protective against Stx2 variants, and 5C12 was the most effective among the three tested. Two HuMAbs directed against the B subunit, while highly effective against Stx2, were ineffective against Stx2 variants. In a streptomycin-treated mouse model, parenteral administration of 5C12 significantly protected mice up to 48 h after oral bacterial challenge. We conclude that 5C12, reactive against the Stx2 A subunit, is an excellent candidate for immunotherapy against HUS and that antibodies directed against the A subunit of Stx2 have broad-spectrum activity that includes Stx2 variants, compared with those directed against

the B subunit.

Tags: Female; Human; Support, U.S. Gov't, P.H.S.

Descriptors: \*Antibodies, Monoclonal--therapeutic use--TU; \*Escherichia coli Infections--prevention and control--PC; \*Shiga-Like Toxin II --immunology--IM; Animals; Hela Cells; Immunoblotting; Mice; Neutralization Tests; Protein Subunits; Shiga-Like Toxin II--toxicity--TO; Time Factors

CAS Registry No.: 0 (Antibodies, Monoclonal); 0 (Protein Subunits); 0 (Shiga-Like Toxin II)

Record Date Created: 20030522

Record Date Completed: 20030619

14/9/2

DIALOG(R) File 155: MEDLINE(R)

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12010781 PMID: 12228326

Production and characterization of protective human antibodies against Shiga toxin 1.

Mukherjee Jean; Chios Kerry; Fishwild Dianne; Hudson Deborah; O'Donnell Susan; Rich Stephen M; Donohue-Rolfe Arthur; Tzipori Saul

Division of Infectious Diseases, Tufts University School of Veterinary Medicine, North Grafton, Massachusetts, USA

Infection and immunity (United States) Oct 2002, 70 (10) p5896-9,  
ISSN 0019-9567 Journal Code: 0246127

Contract/Grant No.: P30-DK-34928; DK; NIDDK; R01-AI41326; AI; NIAID

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Hemolytic-uremic syndrome ( HUS ) is a serious complication which is predominantly associated in children with infection by Shiga toxin-producing Escherichia coli (STEC). By using HuMAb-Mouse (Medarex) animals, human monoclonal antibodies (Hu-MAbs) were developed against Shiga toxin 1 (Stx1) for passive immunotherapy of HUS . Ten stable hybridomas comprised of fully human heavy- and light-chain immunoglobulin elements and secreting Stx1-specific Hu-MAbs (seven immunoglobulin M(kappa) () [IgM(kappa)] elements [one specific for the A subunit and six specific for the B subunit] and three IgG1(kappa) elements specific for subunit B) were isolated. Two IgM(kappa) Hu-MAbs (2D9 and 15G9) and three IgG1(kappa) Hu-MAbs (5A4, 10F4, and 15G2), all specific for subunit B, demonstrated marked neutralization of Stx1 in vitro and significant prolongation of survival in a murine model of Stx1 toxicosis.

Tags: Female; Human; In Vitro; Support, U.S. Gov't, P.H.S.

Descriptors: \*Antibodies, Bacterial--biosynthesis--BI; \*Escherichia coli --immunology--IM; \*Hemolytic-Uremic Syndrome--therapy--TH; \*Shiga-Like Toxin I--immunology--IM; Animals; Antibodies, Bacterial--therapeutic use --TU; Antibodies, Monoclonal--biosynthesis--BI; Antibodies, Monoclonal --therapeutic use--TU; Child; Escherichia coli--pathogenicity--PY; Hela Cells; Hemolytic-Uremic Syndrome--etiology--ET; Hemolytic-Uremic Syndrome --immunology--IM; Hybridomas--immunology--IM; Immunization, Passive ; Immunoglobulin G--biosynthesis--BI; Immunoglobulin G--therapeutic use--TU; Immunoglobulin M--biosynthesis--BI; Immunoglobulin M--therapeutic use--TU; Mice; Neutralization Tests; Shiga-Like Toxin I--toxicity--TO

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antibodies, Monoclonal); 0 (Immunoglobulin G); 0 (Immunoglobulin M); 0 (Shiga-Like Toxin I)

Record Date Created: 20020913

Record Date Completed: 20021018

14/9/3

DIALOG(R) File 155: MEDLINE(R)

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11234137 PMID: 11274731

Tolerance to lipopolysaccharide (LPS) regulates the endotoxin effects on Shiga toxin-2 lethality.

Alves-Rosa F; Beigier-Bompadre M; Fernandez G; Barrionuevo P; Mari L; Palermo M; Isturiz M  
Division Inmunologia, Instituto de Investigaciones Hematologicas, Academia Nacional de Medicina, Pacheco de Melo 3081, 1425, Buenos Aires, Argentina.

Immunology letters (Netherlands) 0165-2478 Journal Code: 7910006 Mar 1 2001, 76 (2) p125-31, ISSN

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

It has been suggested that Shiga toxin (Stx) is necessary but not sufficient for hemolytic uremic syndrome ( HUS ) development, and pro-inflammatory stimuli such as lipopolysaccharide (LPS) from Gram negative bacteria are needed. Taking into account that LPS is present in the natural infection during HUS development, detoxification or regulation of LPS activity could be crucial to define the course of the disease. The objective of the present study was to investigate whether tolerance to LPS and/or antibodies to LPS, are able to modify the LPS-induced modulation of Stx type-2 (Stx2) lethality in a mouse model. Our results demonstrate that the high levels of IgG anti-LPS antibodies in immunized mice did not modify the dual effects of LPS (enhancement or protection) on Stx2 action. This could be attributed to the fact that antibodies do not recognize the active portion of LPS molecule (lipid A). However, the enhancement of Stx2 toxicity exerted by LPS was inhibited in tolerant mice. This effect could be ascribed to the inhibition of LPS-induced TNF-alpha and IL-1beta secretion in tolerant animals, two cytokines known to be involved in the overexpression of Stx receptors. The phenomenon of LPS-induced protection on Stx2 toxicity was also inhibited in tolerant animals, although the mechanism involved in this effect is not clear. This is the first description which shows the influence of endotoxin tolerance on the evolution of experimental HUS . However, like in Gram negative infections, further knowledge on tolerance mechanism is necessary in order to achieve a comprehensive view of this phenomenon.

Tags: Male; Support, Non-U.S. Gov't

Descriptors: \*Drug Tolerance--physiology--PH; \*Lipopolysaccharides--pharmacology--PD; \*Shiga-Like Toxin II--toxicity--TO; Animals; Antibodies, Bacterial--immunology--IM; Cobalt; Immunization, Passive; Lipopolysaccharides--immunology--IM; Mice; Mice, Inbred BALB C; Tumor Necrosis Factor--secretion--SE

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Lipopolysaccharides); 0 (Shiga-Like Toxin II); 0 (Tumor Necrosis Factor); 7440-48-4 (Cobalt)

Record Date Created: 20010329

Record Date Completed: 20010705

14/9/4

DIALOG(R) File 155: MEDLINE(R)

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10301743 PMID: 7998406

[Clinical management of hemolytic-uremic syndrome and thrombotic-thrombocytopenic purpura]

Klinisches Vorgehen bei hamolytisch-uramischem Syndrom und thrombotisch-thrombozytopenischer Purpura ( HUS -TTP ).

Keller F; Schwarze H; Schwarz A

Sektion Nephrologie, Medizinische Universitätsklinik, Ulm, Bundesrepublik, Deutschland.

Wiener klinische Wochenschrift (AUSTRIA) 1994, 106 (19) p603-7, ISSN 0043-5325 Journal Code: 21620870R

Document type: Journal Article; Review; Review, Tutorial ; English Abstract

Languages: GERMAN

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

BACKGROUND: According to recent research, the hemolytic-uremic syndrome ( HUS ) and thrombotic-thrombocytopenic purpura (TTP) are variable

expressions of the same entity ( HUS -TTP) with a common pathomechanism (endothelial cell damage, microthrombi) and common treatment (plasma infusion, plasmapheresis). The condition is still serious with a poor prognosis, and the therapeutic regimen is not yet standardized (cryosupernatant and factor VIII free plasma, steroids, immunoglobulins, anticoagulation, dextrane, prostacyclin, vincristine, splenectomy?). CLINICAL OBSERVATIONS AND REVIEW OF THE LITERATURE: Over an observation period of 15 years we considered the differential diagnosis of HUS -TTP in 34 patients, and treated 11 patients with 12 clinical courses specifically with fresh-frozen plasma (plasmapheresis was additionally performed in 10 of them). The 12 courses were retrospectively evaluated and compared with results achieved in the literature. The mean age of the patients was 43 years (+/- 14), and 9 of the 11 patients were women (2 courses given to one woman). The hemolysis improved in 9 of 12 courses, the cerebral manifestation in 3 of 4 cases, and the thrombocytopenia in 2 of 4 cases. Renal failure responded in only 4 of 9 cases and the response was delayed in these patients. Three patients died: one of brain edema due to TTP-specific cerebral microangiopathy and two due to the underlying disease (lupus erythematosus, mixed connective tissue disease). CONCLUSION: Treatment of HUS -TTP is started with fresh-frozen plasma infusions (1-1.5 liters/day), but plasmapheresis should be added 2 days later (3 x 4 liters/week, whereby 2 liters should be given as fresh-frozen plasma). The administration of fresh-frozen plasma must be continued every day. In resistant cases, specific therapy should not be terminated before 4 weeks. (36 Refs.)

Tags: Female; Human; Male

Descriptors: \*Hemolytic-Uremic Syndrome--therapy--TH; \*Purpura, Thrombotic Thrombocytopenic--therapy--TH; Adult; Combined Modality Therapy; Diagnosis, Differential; Hemolytic-Uremic Syndrome--etiology--ET; Hemolytic-Uremic Syndrome--mortality--MO; Immunization, Passive; Middle Aged; Plasma; Plasmapheresis; Purpura, Thrombotic Thrombocytopenic--etiology--ET; Purpura, Thrombotic Thrombocytopenic--mortality--MO; Retrospective Studies

Record Date Created: 19950119

Record Date Completed: 19950119

14/9/5

DIALOG(R) File 155: MEDLINE(R)

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09813468 PMID: 8365810

Differences in verotoxin neutralizing activity of therapeutic immunoglobulins and sera from healthy controls.

Bitzan M; Klemt M; Steffens R; Muller-Wiefel D E

Universitats-Kinderklinik, Hamburg, Germany.

Infection (GERMANY) May-Jun 1993, 21 (3) p140-5, ISSN 0300-8126

Journal Code: 0365307

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Intestinal infection by *Escherichia coli* O157 and other verotoxin (VT) producing *E. coli* has been increasingly recognized as an important factor for the causation of classic (enteropathic) hemolytic uremic syndrome ( HUS ) and hemorrhagic colitis (HC). Toxins most frequently involved are VT1 and VT2. As with other toxin-mediated diseases, administration of immunoglobulin (Ig) may be beneficial. However, little is known about the immune response elicited by the toxin(s), and the prevalence of VT neutralizing antibodies in the healthy population. We studied the capacity of seven Igs and a commercial plasma preparation to neutralize four different VTs (VT1, VT2, VT2c and VT2e). The results were compared with the neutralization titers (NT50%) of normal human serum samples from various age groups. Plasma products and normal sera were separated by protein G affinity chromatography to investigate the factor(s) responsible for VT neutralization. All Igs neutralized VT1 (8 to 96 NT50%). None of them inhibited VT2, VT2c or VT2e effectively. In contrast, none of 40 pediatric, and only one of 20 adult control sera (starting dilution 1:4) neutralized

VT1 (25 NT50%). All 60 samples as well as the plasma preparation blocked VT2 (22 to 446 NT50%, median 137), but not VT2c and VT2e. The VT1 neutralizing activity was eluted with the IgG fraction. The VT2 neutralizing activity was not bound by protein G, but was recovered in the IgG-free effluent. In conclusion, therapeutic IgG significantly neutralize VT1, but are largely ineffective against other VTs. In contrast, all control sera inhibited VT2, but rarely VT1. (ABSTRACT TRUNCATED AT 250 WORDS)

Tags: Comparative Study; Human

Descriptors: \*Bacterial Toxins--immunology--IM; \*Blood--immunology--IM; \*Enterotoxins--immunology--IM; \*Escherichia coli; \*Immunoglobulins--immunology--IM; Adolescent; Adult; Aged; Bacterial Toxins--chemistry--CH; Child; Child, Preschool; Chromatography, Affinity; Immunization, Passive; Immunoglobulin G--isolation and purification--IP; Infant; Middle Aged; Nerve Tissue Proteins; Neutralization Tests; Plasma--immunology--IM; Shiga-Like Toxin I; Shiga-Like Toxin II

CAS Registry No.: 0 (Bacterial Toxins); 0 (Enterotoxins); 0 (G-substrate); 0 (Immunoglobulin G); 0 (Immunoglobulins); 0 (Nerve Tissue Proteins); 0 (Shiga-Like Toxin I); 0 (Shiga-Like Toxin II)

Record Date Created: 19931005

Record Date Completed: 19931005

14/9/6

DIALOG(R) File 155: MEDLINE(R)

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08988767 PMID: 1714289

The use of intravenous gammaglobulin in the treatment of typical hemolytic uremic syndrome.

Robson W L; Fick G H; Jadavji T; Leung A K

Department of Pediatrics, University of Calgary, Alberta, Canada.

Pediatric nephrology (Berlin, Germany) (GERMANY) May 1991, 5 (3)

p289-92, ISSN 0931-041X Journal Code: 8708728

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Nine children with acute typical post-diarrhea hemolytic uremic syndrome (HUS) were treated with intravenous gammaglobulin (IVIG). These children were compared to nine children with HUS who did not receive IVIG. The use of IVIG did not appear to have a beneficial effect on eight of the nine treated children. There were no significant differences found in the duration of hemorrhagic colitis, thrombocytopenia, elevation of the white blood count (WBC), anuria, dialysis, or hospitalization, or the presence of a central nervous system complication or pancreatitis. Although no significant difference was found in the duration of thrombocytopenia, there was a trend towards a longer duration of thrombocytopenia in children treated with IVIG (P = 0.13). One child demonstrated both an increase in her platelet count and a decrease in her WBC count within 24 h of receiving her first dose of IVIG.

Tags: Comparative Study; Female; Human; Male

Descriptors: Gamma-Globulins--administration and dosage--AD; \*Hemolytic-Uremic Syndrome--therapy--TH; \* Immunization, Passive; Adolescent; Anuria; Child; Child, Preschool; Colitis--therapy--TH; Infant; Infusions, Intravenous; Leukocyte Count; Prognosis; Thrombocytopenia--therapy--TH

CAS Registry No.: 0 (Gamma-Globulins)

Record Date Created: 19910917

Record Date Completed: 19910917

14/9/7

DIALOG(R) File 155: MEDLINE(R)

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07947166 PMID: 3057156

Anticytotoxin-neutralizing antibodies in immune globulin preparations:

**potential use in hemolytic-uremic syndrome.**

Ashkenazi S; Cleary T G; Lopez E; Pickering L K  
Program in Infectious Diseases and Clinical Microbiology, University of  
Texas Medical School, Houston 77025.

Journal of pediatrics (UNITED STATES) Dec 1988, 113 (6) p1008-14,

ISSN 0022-3476 Journal Code: 0375410

Comment in J Pediatr. 1989 Sep;115(3) 502-4; Comment in PMID 2769516

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: AIM; INDEX MEDICUS

The pathogenesis of primary (classic) hemolytic-uremic syndrome ( **HUS** ) is thought to be related to cytotoxin-producing enteric pathogens such as *Shigella dysenteriae* serotype 1 and *Escherichia coli* serotypes O157:H7 and O26:H11. The relevant cytotoxins include Shiga toxin and the closely related Shiga-like toxins (SLTs) produced by some *E. coli* strains.

[Intravenously administered immune globulin (IVIG) therapy has been reported to be beneficial in a few children with **HUS** . We therefore examined commercially available immune globulin preparations for the presence of anticytotoxin-neutralizing antibodies. Cytotoxicity and neutralization of the **HUS** -associated cytotoxins were quantitatively determined by means of a (3H)thymidine-labeled HeLa cell assay. The immune globulin preparations tested almost completely neutralized Shiga toxin (produced by *S. dysenteriae* 1) and SLT-I (produced by *E. coli* serotype O26:H11). Twofold dilutions of the preparations showed significant (p less than 0.01) neutralizing titers of 1:64 to 1:128. No significant neutralization (greater than 20%) of SLT-II (produced by *E. coli* strain C600 (933W) was noted. The IVIG preparation lost its inhibitory activity when passed through a protein A-Sepharose column, which bound immune globulin, indicating that its neutralizing effect is related to the antibody content. We also examined sera from 30 children without diarrhea or **HUS** ; only one child had neutralizing titers against Shiga toxin (1:64) and SLT-I (1:128). Immune globulin preparations contain anticytotoxin-neutralizing antibodies, a finding that warrants further investigation of the therapeutic role of these preparations in early treatment of children with **HUS** related to Shiga toxin and SLT-I.]

Tags: Human; Support, Non-U.S. Gov't

Descriptors: Antibodies, Bacterial--administration and dosage--AD;

\*Cytotoxins--immunology--IM; \*Escherichia coli--immunology--IM; \*Hemolytic-Uremic Syndrome--therapy--TH; \* Immunization, Passive --methods--MT;

\*Neutralization Tests; \*Shigella dysenteriae--immunology--IM; Adolescent; Child; Child, Preschool; Cytotoxicity, Immunologic; Diarrhea, Infantile --therapy--TH; Dysentery, Bacillary--therapy--TH; Escherichia coli Infections--therapy--TH; Hela Cells--immunology--IM; Hemolytic-Uremic Syndrome--immunology--IM; Infant

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Cytotoxins)

Record Date Created: 19890110

Record Date Completed: 19890110

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\$1.47 7 Type(s) in Format 9

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\$0.24 TELNET

\$3.00 Estimated cost this search

\$3.00 Estimated total session cost 0.403 DialUnits

### Status: Signed Off. (1 minutes)

05429054 EMBASE No: 1993197153

**Differences in verotoxin neutralizing activity of therapeutic immunoglobulins and sera from healthy controls**

Bitzan M.; Klemt M.; Steffens R.; Muller-Wiefel D.E.

The Hospital for Sick Children, Dept of Microbiology, 555 University Avenue, Toronto M5G 1X8 Canada

Infection ( INFECTION ) (Germany) 1993, 21/3 (140-145)

CODEN: IFTNA ISSN: 0300-8126

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH; GERMAN

Intestinal infection by *Escherichia coli* O157 and other verotoxin (VT) producing *E. coli* has been increasingly recognized as an important factor for the causation of classic (enteropathic) hemolytic uremic syndrome (HUS) and hemorrhagic colitis (HC). Toxins most frequently involved are VT1 and VT2. As with other toxin-mediated diseases, administration of immunoglobulin (Ig) may be beneficial. However, little is known about the immune response elicited by the toxin(s), and the prevalence of VT neutralizing antibodies in the healthy population. We studied the capacity of seven IgGs and a commercial plasma preparation to neutralize four different VTs (VT1, VT2, VT2c and VT2e). The results were compared with the neutralization titers (NT(50%)) of normal human serum samples from various age groups. Plasma products and normal sera were separated by protein G affinity chromatography to investigate the factor(s) responsible for VT neutralization. All IgGs neutralized VT1 (8 to 96 NT(50%)). None of them inhibited VT2, VT2c or VT2e effectively. In contrast, none of 40 pediatric, and only one of 20 adult control sera (starting dilution 1: 4) neutralized VT1 (25 NT(50%)). All 60 samples as well as the plasma preparation blocked VT2 (22 to 446 NT(50%), median 137), but not VT2c and VT2e. The VT1 neutralizing activity was eluted with the IgG fraction. The VT2 neutralizing activity was not bound by protein G, but was recovered in the IgG-free effluent. In conclusion, therapeutic IgGs significantly neutralize VT1, but are largely ineffective against other VTs. In contrast, all control sera inhibited VT2, but rarely VT1. Different principles, notably IgG and non-IgG (probably non- immunoglobulin ) factors, respectively, appear to be responsible for the reduction of VT1 and VT2 cytotoxicity in vitro. Patients with VTEC disease are rarely expected to benefit from the use of presently available IgGs.

13471072 PMID: 9154716

[An old female case of vero-cytotoxin-producing *Escherichia coli* O-157: H7 infection]

Takaki Y; Makishita A; Goto M; Motomatsu T; Yoshihara T

Department of Forensic Medicine, Faculty of Medicine, Kyushu University, Fukuoka.

Fukuoka igaku zasshi = Hukuoka acta medica (JAPAN) Apr 1997, 88 (4) p128-31, ISSN 0016-254X Journal Code: 9423321

Document type: Case Reports; Journal Article ; English Abstract

Languages: JAPANESE

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

It is well known that verocytotoxin-producing *Escherichia coli* O-157 : H7 infection can be severe in elderly persons. We report an 82-year-old female case of verocytotoxin-producing *Escherichia coli* O-157 : H7 infection. She was admitted to our hospital because of bloody diarrhea. The hemolytic-uremic syndrome (HUS) was not occurred, but systemic edema, ascites, pleural effusion and pulmonary edema with hypoxemia gradually appeared. Treatment with **human** immunoglobulin in addition to fluid therapy, antibiotics, diuretics and **human** serum albumin resulted in dramatic improvement. Management of complications such as sepsis and electrolyte disturbance caused by this infection was considered to be important in elderly patients.

Tags: Female; **Human**

Descriptors: Bacterial Toxins--biosynthesis--BI; \**Escherichia coli* Infections--therapy--TH; \* **Escherichia coli** O157 ; \*Gastrointestinal Diseases--therapy--TH; Aged; Aged, 80 and over; Anti-Bacterial Agents --therapeutic use--TU; Diuretics--therapeutic use--TU; **Escherichia coli** O157 --metabolism--ME; Fluid Therapy; Immunization, Passive ; Septicemia --prevention and control--PC; Serum Albumin--therapeutic use--TU; Shiga-Like Toxin I; Water-Electrolyte Imbalance--prevention and control--PC  
CAS Registry No.: 0 (Anti-Bacterial Agents); 0 (Bacterial Toxins); 0 (Diuretics); 0 (Serum Albumin); 0 (Shiga-Like Toxin I)

Record Date Created: 19970711

Record Date Completed: 19970711

0005339587 BIOSIS NO.: 198732068478

**HIGH DOSE IMMUNOGLOBULIN (IG) INFUSIONS IN HEMOLYTIC UREMIC SYNDROME HUS**

AUTHOR: SHETH K J (Reprint); GILL J C; LEICHTER H

AUTHOR ADDRESS: MED COLL WIS, DEP PEDIATRICS, CHILDREN'S HOSP WIS,  
MILWAUKEE, WIS, USA\*\*USA

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DESCRIPTORS:

MAJOR CONCEPTS: Blood and Lymphatics--Transport and Circulation; Clinical  
Endocrinology--Human Medicine, Medical Sciences; Endocrine System--  
Chemical Coordination and Homeostasis; Pediatrics--Human Medicine,  
Medical Sciences; Pharmacology; Urology--Human Medicine, Medical  
Sciences

BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata,  
Animalia

COMMON TAXONOMIC TERMS: Animals; Chordates; Humans; Mammals; Primates;  
Vertebrates

CONCEPT CODES:

00520 General biology - Symposia, transactions and proceedings

10064 Biochemistry studies - Proteins, peptides and amino acids

10068 Biochemistry studies - Carbohydrates

12512 Pathology - Therapy

15004 Blood - Blood cell studies

15506 Urinary system - Pathology

17002 Endocrine - General

22005 Pharmacology - Clinical pharmacology

22018 Pharmacology - Immunological processes and allergy

22032 Pharmacology - Urinary system

25000 Pediatrics

32600 In vitro cellular and subcellular studies

34508 Immunology - Immunopathology, tissue immunology

BIOSYSTEMATIC CODES:

86215 Hominidae

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Author(s): SHETH KJ ; GILL JC; LEICHTER H

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